Work Orde September-27-13		M	46.3910 46.7610		7610*						Page	1
Revision ID:	646.3910 Shim	6	46.33 B107610	Accept	*N900	040	100)* s	etup Stai Sto	. 13	S1* S2*	
Start Date: Required Date: Reference:	9/27/13 9/27/13	Start Qty: 8.00 Req'd Qty: 8.00	*9*	X10*	Cust Item I Customer:	D:			C.			
Approvals:	Process Pla	n:M	Date: 13-09	- <u>3</u> 8 Tooling:	D	ate:		K	lun Sta	1/1	R1*	
	QC:		Date:	SPC (Y/N):	D	ate:			Sto	*N	R2*	
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr	Rev	ision Nbr										
646.3900	N/C											
*110 *110*			•	0.00				10	0		A.	:
Waterjet		Memo		0.00							(3.1/	- - ^つ
FLOW CNC Waterj	et	1-Cut as pe Dwg Rev:_ Prog Rev:_	NC								() "	
		2-Deburr it	fnecessary									
120		QC2- Inspect parts off	machine FAI/FAIB	0.00							,	
120 QC Quality Control		Memo		0.00				10	_0_		13.1	1.02

											DQA:	Date:	
NCR: Y	es/	/ No				WORK ORDER NON-	·COI	NFORM	AANCE / UPD	ATE			-
		·									QA Closed:	Date:	
Work Orde	·					DISPOSITION			,	AGAINST DE	PARTMENT	/PROCESS	
WOIK OIGE	-					Rework	7		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
· u····						Use-as-is	7	l .	noforming	Finishing	1	re/Packaging	Other
NCR N	No.					Work Order Update			Large Fab	Composite		Supplier	
Root					Descri	ption of work order update		l Initial	Acti	on	Sign &		I
Cause		Date	Step	Qty		or Non-conformance	Cr	nief Eng	Descri	ption	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator							1						
Material	Ш												
Setup							1						
Other													
Process													
Supplier]	Ì	,								
Training			1				-						
Unapproved							1						
							FAU	LT CATE	GORY				
Landi	ng G	iear				General					_		-
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
٠.		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/U	nclear	Part Lost/M	issing	Wrong Stock Pulled
	П	Cuffs				Contamination		Mainte	enance		Part Moved		
	П	Heat Trea	at			Countersink		Mislabe	eled		Positioned V	Vrong	
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
	П	Ripples in	n Bend			Drill Holes		Offset		_	_		

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord September-27-1				*107	610*							Page 2
Item ID: Revision ID: Item Name:	646.3910 Shim			Accept	*N900	በ4በ′	וחח	* 9	Setup	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	9/27/13 : 9/27/13	Start Qty: 8.00 Req'd Qty: 8.00	*8* *8*	·	Cust Item II Customer:	D :						
Approvals:		an:	Date:	Tooling: SPC (Y/N):	Da			ŀ	₹un	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center I 130 *120* QC Quality Control	D	Operation Description QC8- Inspect parts - second	ond check	Set Up/ Run Hoass 0.00 27 9-89	Tool ID		Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*140 *140* Outsource3 Outsource process	- Cad plate	Outsource process-Cadp Memo Issue P/O:_	late per QSI017 4.1.9.1	0.00				Ca	11	3 <i>[[]</i>	06	(TO)
150 *150* Packaging		Receive & Inspect for D Memo	amage & Mat'l Certs	0.00				/OX	-6		1	-12-4

Packaging

DAS 26 9-89

											DQA:	Date	e:
NCR: Y	'es	/ No				WORK ORDER NON-C	COI	NFORM	AANCE / UPDATE				
					<u>.</u>						QA Closed:	Date	2:
Work Orde	ır.					DISPOSITION			AG	AINST DE	PARTMENT,	/PROCESS	
	-				··	Rework]		— —	sstube	0	Water Jet	Engineering
Part N	10.					Scrap	-		→	all Fab		d. Eng. Coor. re/Packaging	Quality Other
NCR N	۱o. ₋					Use-as-is Work Order Update]		~ 	posite	Rec/Stol	Supplier	- Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data						·							
Equip/Tooling			 -										
Operator													
Material													
Setup] [1						
Other													
Process													
Supplier													
Training												1	
Unapproved													
					· · · · · · · · · · · · · · · · · · ·	F	AUI	LT CATE	GORY				
Landi	ng G	ear				General		_			•	_	
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks			<u></u>	Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct [Weld
		Crushed/	Crimped			Burrs	L	Instruct	ions Incomplete/Unclear		Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	at			Countersink		Mislabe	led		Positioned V	Vrong _	_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset				_	

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence
Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

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Work Ord September-27-1				
Item ID:	646.3910			Accept
Revision ID:				
Item Name:	Shim			
Start Date:	9/27/13	Start Qty:	8.00	*8*
Required Date	: 9/27/13	Req'd Qty:	8.00	*8*

N900040100 Setup Start

Cust Item ID: Customer:

07610*

Reference: Run Approvals: Process Plan: Date: **Tooling:** Date: Stop Date:_____ QC: SPC (Y/N): Date:

Sequence ID/ Set Up/ Operation Tool ID Tool # Plan Reject Reject Accept Insp. Run Hours DAS Work Center ID Number Stamp Description Code Qty Qty 160 QC5- Inspect part completeness to step on W/O 10 *160* Memo

Identify as per dwg & Stock Location: 57535

170 Packaging

Quality Control

0.00 Memo

***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND Packaging

REV***

170

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Quality Control

N13-12-4

Page 3

10 × DAS 13-12-5

												DQA:	Da	ite:	
NCR: Y	⁄es	/ No				WORK ORDER NON-	COI	NFORN	MANCE / UPD	DATE	Q	A Closed:	Da	ate:	
Work Orde	or.					DISPOSITION				AGAINST DE	EPA	RTMENT	/PROCESS		
Part N	No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet d. Eng. Coor re/Packaging Supplier		Engineering Quality Other
Root					Descrip	otion of work order update		Initial	Act	ion	1	Sign &			
Cause		Date	Step	Qty	O	or Non-conformance	Ch	nief Eng	Descr	iption		Date	Verification	n	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved															
							AUI	LT CATE	GORY						
Landi	<u> </u>	Bending Centre N Cracks Crushed/ Cuffs Heat Trea Inspection	'Crimped at in Strip in		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/L enance eled	Jnclear	Pi Pi	valized ver/Under art Incorred art Lost/Mi art Moved ositioned V ower Loss/	ct issing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	1	Ripples in	n Bend			Drill Holes		Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-27-13 12:57:13 PM

Page 1

Work Order ID:

107610

Parent Item:

646.3910

Parent Item Name:

Shim

Start Date: 9/27/13

Required Date: 9/27/13

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP REV:A 12.12.23 NEW ISSUE DD VERF:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MC1095S.020 C1095 Blue Tempered Spr	ing Steel Sheet .020	Purchased	No			110	sf	28.4000	0.03	0.2526316		Au	13.11.
, c 2				Location		Loc Oty	Loc	Code					
				MAT022		28.4							
				1235	37	5.4						•	
				m12	6423	23			17	64 JZ -	-	-31	

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	100	NFORM	ANCE / UP	DATE			*
						•			•		QA Closed:	Date:	
Maril Ord		,				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Ord	er: .					Rework	7 l		Skid-tube	Crosstube	1	Water Jet	Engineering
Doret	NI.a	,				Scrap	1	l	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
Part	NO.					Use-as-is	1]		noforming	Finishing		re/Packaging	Other
NCR	No					Work Order Update	1		Large Fab	Composite	inec/sto	Supplier	
Nen	NO.			 		Work Order opdate	ال		carge rab	composite	1	3upplie!	,
Root	-				Descri	ption of work order update	T	nitial	Act	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling								İ					
Operator				ļ									
Material			l l						:				
Setup													
Other	L												
Process			Ì		.								
Supplier	L		ļ										
Training		<u> </u>											
Unapproved	<u> </u>		<u> </u>				<u> </u>						
						F	AUI	T CATE	GORY				
Land	ing (Gear			_	General	_	1		_	7		ד
		Bending			Ĺ	Bend	\perp	Grain			Ovalized		Pressure/Forced
	L	4	ot Conce	ntric to	o/s	BOM/Route	<u> </u>	Hardwa		_	Over/Under		Temperature/Cure
	<u></u>	Cracks			_	Broken/Damaged	\vdash	4 '	ion Incomplete		Part Incorre	j	Weld
		Crushed/	'Crimped		<u></u>	Burrs	<u></u>	4	ions Incomplete/	Unclear	Part Lost/M		Wrong Stock Pulled
	<u></u>	Cuffs				Contamination	\perp	Mainte		<u> </u>	Part Moved		
		Heat Tre	at			Countersink		Mislabe	eled		Positioned V		٦
	1	Inspection	n Strip in	Tube	1	Cut Too Short	ļ	Misread	1		Power Loss/	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

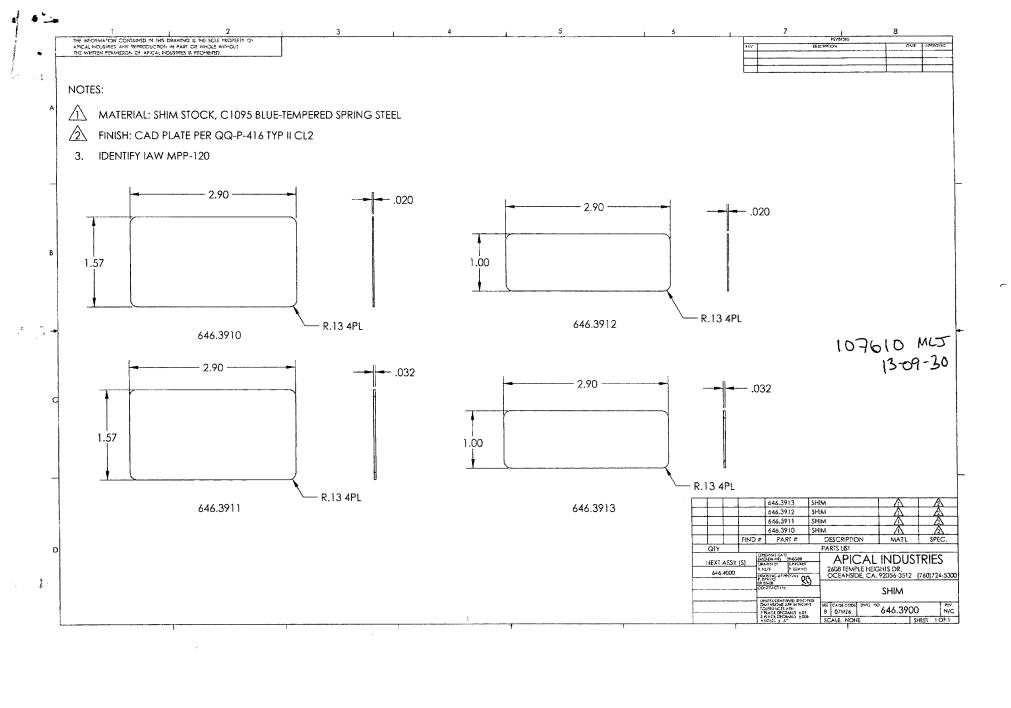
Finish

Folio

DART AEROSPACE LTD	Work Order:	107610
Description: Shim	Part Number:	646.3910
Inspection Dwg: 646.3900 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.57	+/-0.005	1.57"			V	JKM-01
2.90	+/-0.005	2.90"	_		V	
0.020	+/-0.005	"060°			V	
					•	
			DAS			
	k	Audited by:	27 9-89		Preliminary /	
Date: / 3	3.11.00	Date:	K // C	<i>y</i> [Date:
Date C	hange		 ,	/	Revis	ed by Approv



CERTIFICATE OF CONFORMANCE

CADORATH PLATING CO. LTD. 2150 LOGAN AVENUE **WINNIPEG, MANITOBA R2J-0J1**

DATE:

Dec-02-2013

CONSIGNED TO: Dart Aerospace Ltd.

1270 Aberdeen St.

Hawksbury, ON K6A 1K7

W/O #:

130245

INVOICE #:

68742

CONTRACT OR

PURCHASE ORDER #

PO21961

DESCRIPTION:

SHIM

QTY

10

P/N# 646.3910

S/N # 107610

CADMIUM PLATING IAW AMS-QQ-P-416C TYPE 2 YELLOW CLASS 2. BAKE HEAT CHART # 13-1051.

CERTIFICATE: I certify that the items indicated here on have been inspected and tested and conform to all specifications and requirements detailed on the contract or purchase order.

Approved Inspector: